

Appl. No. 10/762,095
Amdt. dated March 16, 2005
Preliminary Amendment

Amendments to the Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (original) An apparatus for removing air or debris from a flow of liquid, said apparatus comprising:

a shell having an inlet, an outlet, and an elongate inner cavity in fluid communication with each of said inlet and said outlet; and

a plurality of elongate coalescing medium assemblies disposed within said cavity of said shell such that said coalescing medium assemblies are oriented substantially parallel to each other, each said coalescing medium assembly including:

a plurality of wire mesh tubes oriented substantially parallel to each other; and

a wire mesh retaining wall substantially surrounding said tubes and holding said tubes together.

2. (original) The apparatus of Claim 1 wherein each said coalescing medium assembly includes a band wrapped around said retaining wall and holding said retaining wall in engagement with said tubes.

3. (original) The apparatus of Claim 1 wherein each said coalescing medium assembly includes an elongate core element substantially surrounded by said tubes and oriented substantially parallel to said tubes, said core element having:

a longitudinal axis extending in a longitudinal direction; and

at least one substantially continuous side surface facing in a lateral direction substantially perpendicular to the longitudinal direction.

4. (canceled) The apparatus of Claim 3 wherein said core element comprises a cylindrical tube.

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5. (original) The apparatus of Claim 3 further comprising an end cap including a plurality of recesses, an end of each of said core elements being received in a respective one of said recesses.

6. (original) The apparatus of Claim 1 wherein said inlet and said outlet are disposed at locations along a longitudinal direction that are between opposite ends of said coalescing medium assemblies.

7. (original) A coalescing medium assembly for removing air or debris from a flow of liquid, said coalescing medium assembly comprising:

a plurality of wire mesh tubes oriented substantially parallel to each other; and
a wire mesh retaining wall substantially surrounding said tubes and holding said tubes together.

8. (original) The assembly of Claim 7 wherein said coalescing medium assembly includes a band wrapped around said retaining wall and holding said retaining wall in engagement with said tubes.

9. (original) The assembly of Claim 7 wherein each of said wire mesh tubes has an outer diameter approximately between 0.4 inch and 0.8 inch.

10. (original) The assembly of Claim 7 wherein said wire mesh tubes and said wire mesh retaining wall are formed of wire having a thickness of approximately between 0.02 inch and 0.04 inch.

11. (original) The assembly of Claim 7 wherein at least one of said wire mesh tubes includes a projection extending from an inner surface of said tube and into an interior of said tube.

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12. (original) The assembly of Claim 7 wherein at least one of said wire mesh tubes includes an elongate surface area-providing element disposed within an interior of said tube.

13. (original) The assembly of Claim 7 further comprising an elongate core element substantially surrounded by said tubes and oriented substantially parallel to said tubes, said core element having:

a longitudinal axis extending in a longitudinal direction; and
at least one substantially continuous side surface facing in a lateral direction substantially perpendicular to the longitudinal direction.

14. (original) The assembly of Claim 13 wherein said core element comprises a cylindrical tube.

15. (original) A coalescing medium assembly for removing air or debris from a flow of liquid, said coalescing medium assembly comprising:

an elongate core element having:
a longitudinal axis extending in a longitudinal direction; and
at least one substantially continuous side surface facing in a lateral direction substantially perpendicular to the longitudinal direction; and
a plurality of wire mesh tubes surrounding said core element and oriented substantially parallel to said core element.

16. (original) The assembly of Claim 15 wherein each of said wire mesh tubes and said elongate core element has a substantially equal width.

17. (original) The assembly of Claim 15 wherein each of said wire mesh tubes and said elongate core element are formed of stainless steel.

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18. (original) The assembly of Claim 15 wherein said wire mesh tubes are arranged in a substantially circular pattern when viewed in the longitudinal direction such that each said wire mesh tube engages two adjacent ones of said wire mesh tubes.

19. (original) The assembly of Claim 18 wherein said elongate core element engages each of said wire mesh tubes arranged in a substantially circular pattern.

20. (original) The assembly of Claim 15 wherein said elongate core element comprises a cylindrical tube.

21. (new) An apparatus for removing air or debris from a flow of liquid, said apparatus comprising:

a shell having an inlet, an outlet, and an elongate inner cavity in fluid communication with each of said inlet and said outlet; and

a plurality of tubes tightly packed within said cavity of said shell such that said tubes are oriented substantially parallel to each other, at least one of said tubes having a discontinuous surface.